

ABSTRACT OF THE DISCLOSURE

A rate feedback and adaptation scheme or system uses a rate of rate feedback asymmetrical with the rate of data rate adaptation. In particular, the rate adaptation system provides a rate of rate feedback slower than the rate of rate adaptation. Thus, by allowing the base station to change the data rate more frequently than the individual wireless units reports the rate information, the rate adaptation system can provide improved flexibility and more efficient use of wireless resources while reducing the processing and transmission overhead required to report the rate information. For example, every 3 slots, a wireless unit can calculate and report a rate for the wireless unit to use on a shared channel to send data. The base station receives the rates from the wireless units seeking to send data over the shared channel and selects a wireless unit to use the shared channel. If the base station can adapt the data rate every slot, the base station can adapt the data rate in accordance with a rate reported by another wireless unit, thereby improving system performance. Because of the small slot duration (for example, .67 microseconds), the relatively reduced rate of reporting should not adversely effect system performance since it is highly unlikely that the achievable data rate will change over a period of a slot under most operating conditions.